

ATTORNEY DOCKET NO. RM1127US (NORT10-00122)
U.S. SERIAL NO. 09/830,690
PATENT

REMARKS

Claims 1-33 were pending in the application.

Claims 1-33 have been rejected.

Claims 1, 6, 11, 13, 14, 17, 22, 28 and 31 have been amended, as set forth herein.

Claims 5, 10, 21 and 26 have been canceled, without prejudice

New Claims 34 and 35 have been added.

Claims 1-4, 6-9, 11-20, 22-25 and 27-35 remain pending in the present application.

I. REJECTION UNDER 35 U.S.C. § 102

Claims 1-28 and 31 were rejected under 35 U.S.C. § 102(b) as being anticipated by Novas (US 5,023,906). In view of the above amendments, the rejection is respectfully traversed.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

With respect to independent Claims 1, 6, 17 and 22, the claims have been amended to incorporate the subject matter claimed in Claims 5, 10, 21 and 26, respectively. Independent Claims 11 and 14 have also been amended to incorporate subject matter similar to that claimed in Claim 5.

ATTORNEY DOCKET NO. RM1127US (NORT10-00122)
U.S. SERIAL NO. 09/830,690
PATENT

For example, Claim 1 has been amended to now recite "said signal processing functional block being further operative to terminate said processing period when the currently computed confidence level and an amount of time remaining in said processing period indicate that the certain cadence is unlikely to be detected before reaching the end of said processing period." Independent Claims 6, 11, 14, 17, 22 and 27 recite similar elements/features.

The Office Action asserts that Novas teaches the above-listed elements/features and cites Col. 20, Line 50 - Col. 21, Line 61 as showing these elements/features. Applicant respectfully disagrees. The cited passages in Novas recite a call progress monitor capable of detecting various complex patterns after a telephone number has been dialed. For example, complex patterns can include ringing, dialtone, busytone, weird busy signal and other special information tone patterns. The call progress monitor monitors the line for a duration of 30 seconds. If one of the complex patterns is detected during the monitoring period, the call progress monitor declares the detected event. However, if nothing is detected after 30 seconds, the call progress monitor declares a "Timeout." See Novas, Col. 20, Lines 33-58.

Novas lacks any mention or suggestion that the call progress monitor is capable of determining that a complex pattern is unlikely to be detected based on a computed confidence level and an amount of time remaining in a processing period. Novas further lacks any mention of suggestion of terminating the processing period before declaring a "Timeout" upon such a determination. Instead, the call progress monitor only terminates the processing period if one of the

ATTORNEY DOCKET NO. RM1127US (NORT10-00122)
U.S. SERIAL NO. 09/830,690
PATENT

complex patterns is actually detected. See Novas, Col. 20, Lines 58-66; and Col. 13, Line 55 - Col. 14, Line 39.

As such, Novas fails to disclose every element/feature of Applicant's invention arranged as they are in independent Claims 1, 6, 14, 17, 22 and 27 (and Claims 2-4, 7-9, 15, 16, 18-20 and 23-25 depending therefrom).

With respect to independent Claim 28, the claim has been amended to now recite "said logical processing unit being operative to compute first spectral characteristic values for each of a plurality of sub-frames within each of said segments and second spectral characteristic values for each of said segments using said respective first spectral characteristic values, said logical processing unit being further operative to compute over time successive classification elements for respective segments of the input signal using said first spectral characteristic values and said second spectral characteristic values." Independent Claim 31 has been amended to recite a similar element/feature.

Novas recites a tone detection module that divides the input signal into processing time intervals called 'epochs.' See Novas, Col. 7, lines 38-39. The tone detection module processes audio sample input data and produces an output every epoch. See Novas, Col. 7, lines 35-38. The output of the tone detection module includes a normalized tone power vector consisting of ten components, each of which corresponds to one of ten normalized power magnitudes that represent the power magnitude of the signal at ten frequencies of interest. See Novas, Col. 9, Lines 46-60. The output of the tone detection module is input to the signal recognition unit. The signal recognition unit is run for each epoch, accepting the output of the tone detection module for that

ATTORNEY DOCKET NO. RM1127US (NORT10-00122)
U.S. SERIAL NO. 09/830,690
PATENT

epoch and producing the name of the signal that best matches the audio sample input data for that epoch. Novas, Col. 10, lines 11-15. Thus, the tone detection module of the Novas reference computes only a first-level value (normalized tone power vector) for only a single time interval and only the first-level value is used by the signal recognition module to produce an output classifying the audio input data for a single time interval.

Novas lacks any mention or suggestion of computing both first-level values (first spectral characteristic values for sub-frames of each time segment) and second-level values (second spectral characteristic values for each time segment). Novas further lacks any mention or suggestion of computing the second spectral characteristic values using the first spectral characteristic values. As such, Novas fails to disclose every element/feature of Applicant's invention arranged as they are in independent Claims 28 and 31.

Accordingly, the Applicant respectfully requests the Examiner withdraw the § 102(b) rejection of Claims 1-4, 6-9, 11-20, 22-25, 27, 28 and 31.

II. REJECTION UNDER 35 U.S.C. § 103

Claims 29, 30, 32 and 33 were rejected under 35 U.S.C. § 103 as being unpatentable over Novas (US 5,023,906) in view of Lai (US 5,479,501). The rejection is respectfully traversed.

Claims 29, 30, 32 and 33 depend from independent Claims 28 and 31 and incorporate the features/elements therein recited. Thus, for the same reasons given above with respect to the §102 rejection of independent Claims 28 and 31, the Novas and Lai references, either alone or in

ATTORNEY DOCKET NO. RM1127US (NORT10-00122)
U.S. SERIAL NO. 09/830,690
PATENT

combination, do not disclose, teach or suggest all the features/elements of Claims 29, 30, 32 and 33 and, therefore, a prima facie case of obviousness has not been established.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection of Claims 29, 30, 32 and 33.

III. NEW CLAIMS

The Applicants have added new Claims 34 and 35. The Applicants submit that no new matter has been added. The Applicants respectfully request entry and full allowance of Claims 34 and 35.

IV. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

ATTORNEY DOCKET NO. RM1127US (NORT10-00122)
U.S. SERIAL NO. 09/830,690
PATENT

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: 8/3/2004



Robert D. McCutcheon
Registration No. 38,717

P.O. Drawer 800889
Dallas, Texas 75380
(972) 628-3632 (direct dial)
(972) 628-3600 (main number)
(972) 628-3616 (fax)
E-mail: *rmccutcheon@davismunck.com*